

28 September 2011

Short-Term Population Projection for Spain, 2011-2021

The population of Spain will decrease 1.2% in the next 10 years if the current demographic trends remain unchanged

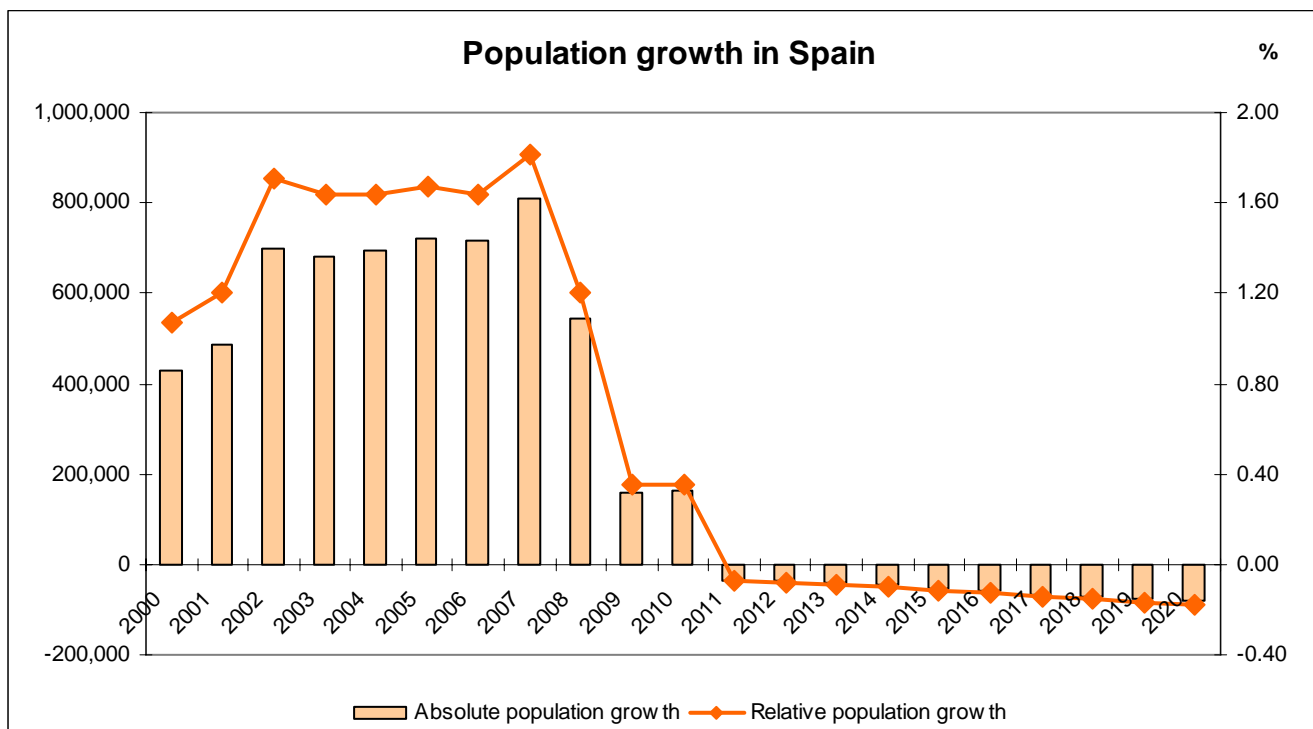
From 2019 the number of deaths will exceed that of births

Spain is to experience slightly negative demographic growth rates this year. Furthermore, if the current demographic trends remained unchanged, it would lose more than half-a-million inhabitants in the next 10 years, after a period of intense population growth. In this way, the population would decrease to 45.6 million in 2021.

Population growth in Spain

Years	Resident population at 1 January	Population growth	
		Absolute	Relative (%)
2000	40,049,708	427,015	1.07
2001	40,476,723	487,521	1.20
2002	40,964,244	699,458	1.71
2003	41,663,702	681,640	1.64
2004	42,345,342	692,693	1.64
2005	43,038,035	720,215	1.67
2006	43,758,250	716,381	1.64
2007	44,474,631	808,628	1.82
2008	45,283,259	544,913	1.20
2009	45,828,172	160,844	0.35
2010	45,989,016	163,910	0.36
2011	46,152,925	-34,193	-0.07
2012	46,118,733	-37,209	-0.08
2013	46,081,524	-41,544	-0.09
2014	46,039,979	-46,883	-0.10
2015	45,993,096	-52,885	-0.11
2016	45,940,210	-59,208	-0.13
2017	45,881,002	-65,492	-0.14
2018	45,815,510	-71,462	-0.16
2019	45,744,048	-76,886	-0.17
2020	45,667,161	-81,587	-0.18
2021	45,585,574		

Source: 2000-2001, Intercensal Population Estimates; 2002-2011 Population Now Cast; 2011-2021, Short-Term Population Projection.



Source: 2000-2001, Intercensal Population Estimates; 2002-2011, Population Now Cast; 2012-2021, Short-Term Population Projection.

Natural growth

Over the course of the next decade, the gradual decrease in birth rate that started in 2009 in Spain would continue to be registered. Thus, between 2011 and 2020, around 4.4 million children would be born, a figure 4.7% lower than last decade. In 2020, 396,417 births would be registered, 18.1% less than in 2010.

This evolution in the birth rate would take place, even if the slightly favourable trend in fertility from recent years were to continue, which would take the average number of children per woman to 1.50 in 2020, as compared with 1.38 in 2010. In fact, the decrease in births would be determined, mainly, by the structure itself of our population pyramid, with less numerous generations of women being of childbearing age, these women having been born during the birth rate crisis of the 80s and the beginning of the 90s.

In turn, the current trend would take the average age of the mother at the birth of her first child to over 31.1 years at the end of the next decade.

On the other hand, and despite the slight decrease in the number of inhabitants, aging of the population would determine an increase in the number of deaths over the coming years. Thus, in the 2011-2020 period, almost 4.1 million deaths would be registered, 7.8% more than were observed between 2001 and 2010. 415,386 deaths were registered in 2020, that is, 9.7 more than in 2010.

If the rates of decrease in the incidence of mortality currently observed remain unchanged over the next decade, life expectancy at birth would increase by 2.0 years in males (up to 80.9), and by 1.5 years in females (up to 86.3). At the same time, life expectancy at 65 years of age would increase by 1.4 years in males (up to 19.7), and by 1.3 in females (up to 23.5).

The decrease in births and the increase in the number of deaths would result in a gradual decrease in annual natural growth (difference between births and deaths), which would become negative before the end of the current decade.

Natural growth of the population of Spain

Years	Births	Deaths	Natural growth	Gross rates per 1000 inhabitants		
				Birth rate	Mortality rate	Natural growth
2000	396,626	357,788	38,838	9.90	8.93	0.97
2001	405,313	357,580	47,733	9.95	8.78	1.17
2002	417,688	366,046	51,642	10.11	8.86	1.25
2003	440,531	382,455	58,076	10.49	9.11	1.38
2004	453,172	369,564	83,608	10.61	8.66	1.96
2005	464,811	385,056	79,755	10.71	8.87	1.84
2006	481,295	369,391	111,904	10.92	8.38	2.54
2007	491,138	383,249	107,889	10.94	8.54	2.40
2008	518,503	384,198	134,305	11.37	8.43	2.95
2009	493,717	383,209	110,508	10.73	8.35	2.38
2010	484,055	378,667	105,388	10.83	8.23	2.60
2011	490,380	393,722	96,658	10.63	8.53	2.10
2012	481,270	396,486	84,784	10.44	8.60	1.84
2013	471,083	399,273	71,810	10.23	8.66	1.56
2014	460,112	402,004	58,107	10.00	8.73	1.27
2015	448,687	404,627	44,060	9.76	8.80	0.96
2016	437,161	407,111	30,049	9.52	8.86	0.66
2017	425,877	409,412	16,466	9.29	8.92	0.37
2018	415,160	411,549	3,611	9.07	8.98	0.09
2019	405,277	413,542	-8,264	8.87	9.04	-0.17
2020	396,417	415,386	-18,969	8.69	9.10	-0.41

Source: 2000-2009, Vital Statistics; 2010, provisional results of the Vital Statistics; 2011-2021, Short-Term Population Projection.

Migratory growth

According to the latest available information, the immigration flow in 2011 would reach a level of around 450,000 immigrants, slightly lower than that estimated for 2010 (465,169) and 2009 (480,974). In turn, 580,850 persons would leave Spain to live abroad in the current year. Therefore, the migratory balance with abroad in 2011 would become negative (-130,850).

Projected foreign migration for Spain

Year	Immigrants	Emigrants	Migratory balance
2011	450,000	580,850	-130,850
2012	450,000	571,993	-121,993
2013	450,000	563,355	-113,355
2014	450,000	554,991	-104,991
2015	450,000	546,946	-96,946
2016	450,000	539,258	-89,258
2017	450,000	531,958	-81,958
2018	450,000	525,073	-75,073
2019	450,000	518,622	-68,622
2020	450,000	512,618	-62,618

Source: 2011-2021, Short-Term Population Projection.

The results of the projection for the whole of the 2011-2020 period corresponded to an immigration flow and a tendency of the population to emigrate abroad, maintained at the level forecast for 2011 with the information available today. Should that be the case, the net

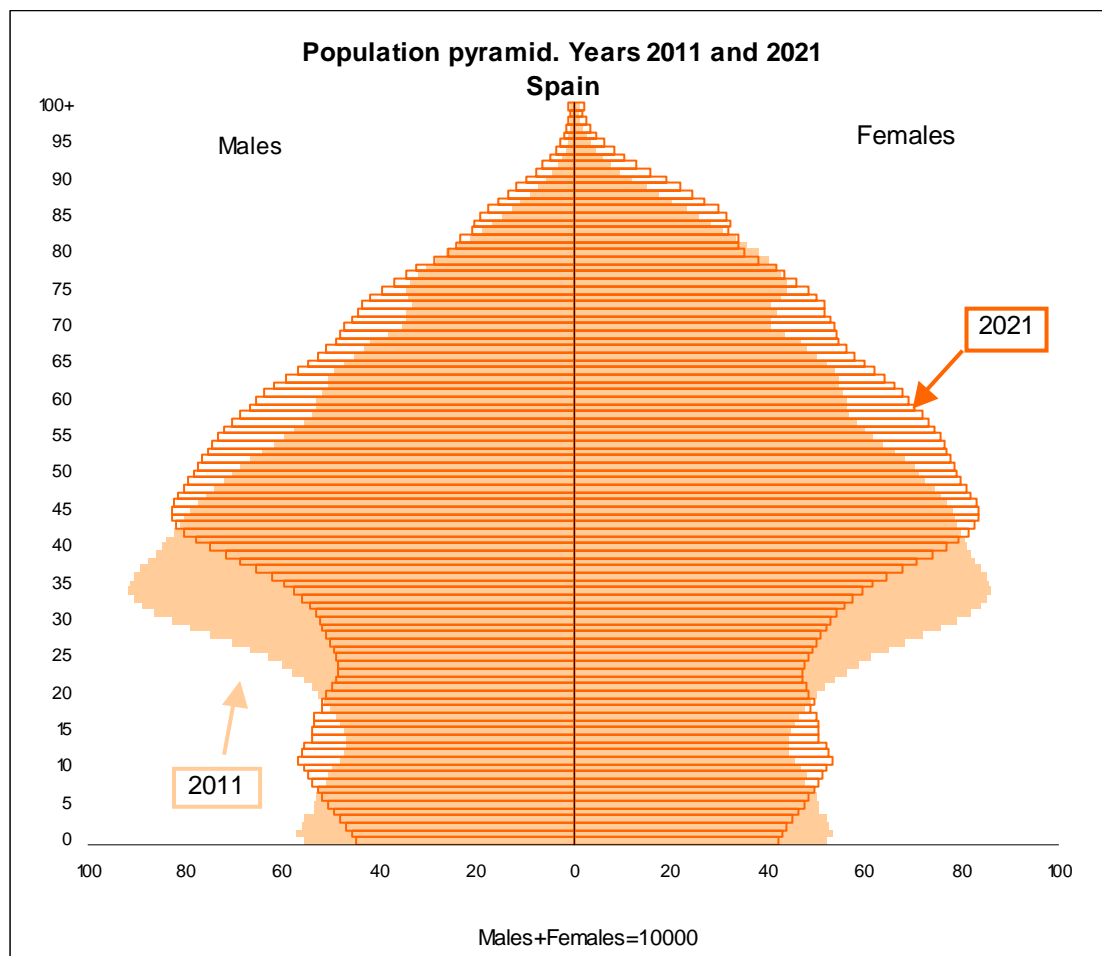
migration would gradually recover over the coming years, but without turning positive, there being accumulated a migratory balance of -945,663 between 2011 and 2020.

Dependency rate

The evolution of the population of Spain pyramid in the coming years will be determined by our own demographic history and by the evolution followed by each of the phenomena.

Thus, the gradual decrease in the birth rate would firstly result in a decrease in the number of children aged under five years old by 409,358 effectives (16.5%) between 2011 and 2021. Furthermore, a slight population decrease would also be observed in children aged between five and nine years old. There would be a particularly intense population decrease between the ages of 20 and 44 years old, ages being reached by those generations of Spaniards born in the birth rate crisis that began in the middle of the 80s and upon which, in turn, the recent drop in net foreign migration had a greater impact. Overall, this age bracket would undergo a decrease of 3.7 million effectives (21.3%) in said period, if the current demographic trends remained unchanged.

Conversely, in the remainder of the age groups, the population would increase. In relative terms, the increase would be particularly intense in the more advanced brackets of the pyramid, as a result of its progressive aging. As a matter of fact, within 10 years, 14 more persons aged over 64 years old would live in Spain, representing 17.8% more than at present.



Source: 2011-2021, Short-Term Population Projection.

Population resident in Spain by five-yearly group at 1 January 2011 and 2021

Age groups	2011	2021	Absolute growth	Relative growth (%)
TOTAL	46,152,925	45,585,574	-567,351	-1.23
0 to 4 years old	2,484,340	2,074,981	-409,358	-16.48
5 to 9 years old	2,336,548	2,326,445	-10,103	-0.43
10 to 14 years old	2,144,197	2,451,980	307,782	14.35
15 to 19 years old	2,208,479	2,341,000	132,521	6.00
20 to 24 years old	2,538,848	2,213,420	-325,429	-12.82
25 to 29 years old	3,211,316	2,283,667	-927,648	-28.89
30 to 34 years old	3,951,189	2,522,033	-1,429,155	-36.17
35 to 39 years old	3,988,739	3,037,123	-951,616	-23.86
40 to 44 years old	3,744,382	3,658,256	-86,126	-2.30
45 to 49 years old	3,486,352	3,717,090	230,738	6.62
50 to 54 years old	3,098,717	3,512,346	413,629	13.35
55 to 59 years old	2,640,486	3,269,818	629,332	23.83
60 to 64 years old	2,441,535	2,900,435	458,900	18.80
65 to 69 years old	2,102,975	2,454,528	351,553	16.72
70 to 74 years old	1,742,829	2,201,674	458,844	26.33
75 to 79 years old	1,712,550	1,776,156	63,605	3.71
80 to 84 years old	1,262,388	1,285,119	22,732	1.80
85 to 89 years old	720,087	970,882	250,795	34.83
90 to 94 years old	263,747	450,769	187,023	70.91
95 to 99 years old	65,183	123,164	57,981	88.95
100 years old and over	8,039	14,688	6,649	82.71

Source: 2011-2021, Short-Term Population Projection.

In this way, the dependency rate (understood to be the quotient, as a percentage, of the population under 16 years old or over 64 years old, and the population aged 16 to 64 years old) would continue its increasing trend of recent years, rising by almost eight points, from its present 49.4, to 57.3% in 2021.

Dependency rates

Years	Over 64 years old	Under 16 years old	Total (under 16 years old and over 64 years old)
2000	24.93	23.98	48.91
2001	25.11	23.52	48.63
2002	25.18	23.24	48.43
2003	25.05	23.10	48.15
2004	24.97	23.05	48.02
2005	24.81	22.93	47.75
2006	24.63	22.86	47.49
2007	24.55	22.86	47.41
2008	24.49	22.98	47.47
2009	24.61	23.20	47.81
2010	25.03	23.60	48.63
2011	25.51	23.93	49.43
2012	26.15	24.30	50.45
2013	26.81	24.66	51.47
2014	27.45	24.98	52.43
2015	28.09	25.25	53.34
2016	28.74	25.44	54.17
2017	29.35	25.53	54.88
2018	29.96	25.55	55.51
2019	30.61	25.53	56.14
2020	31.29	25.43	56.72
2021	32.01	25.29	57.30

Source: 2000-2010, Basic Demographic Indicators; 2011-2021, Short-Term Population Projection.

Demographic evolution by Autonomous Community

The progressive decrease in natural growth of the population (difference between births and deaths) and the very moderate or negative levels of foreign migration would be the main factors determining that eight Autonomous Communities (Cataluña, País Vasco, Castilla y León, Comunitat Valenciana, Galicia, Principado de Asturias, La Rioja and Extremadura) saw their population decrease during 2011.

The extension of currently observed demographic trends for 10 years would entail these eight Communities also experiencing population decreases in the whole 2011-2020 period.

In seven Autonomous Communities, the accumulated number of deaths would exceed that of births over the next decade. Thus, the natural increase between 2011 and 2020 would turn out negative in Galicia, Castilla y León, Principado de Asturias, País Vasco, Extremadura, Aragón and Cantabria.

In the remainder, population growth would remain at moderate levels. The greatest increases in the next 10 years would occur in Illes Balears (3.65%), Canarias (2.71%), Andalucía (2.66%) and Región de Murcia (2.33%).

Population growth by Autonomous Community

	Absolute annual growth										
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
National total	163,910	-34,193	-37,209	-41,544	-46,883	-52,885	-59,208	-65,492	-71,462	-76,886	-81,587
Andalucía	50,221	30,009	28,545	26,860	25,005	23,037	21,017	19,006	17,057	15,214	13,517
Aragón	1,885	1,101	964	800	621	435	250	79	-73	-200	-299
Asturias, Principado de	-2,559	-3,496	-3,524	-3,577	-3,652	-3,742	-3,840	-3,939	-4,033	-4,116	-4,185
Balears, Illes	9,424	6,080	5,538	5,019	4,525	4,060	3,625	3,224	2,858	2,528	2,234
Canarias	12,021	8,818	8,108	7,392	6,678	5,972	5,279	4,609	3,970	3,367	2,799
Cantabria	637	706	601	480	345	203	58	-85	-221	-348	-463
Castilla y León	-7,739	-10,124	-10,066	-10,053	-10,075	-10,117	-10,165	-10,207	-10,234	-10,242	-10,223
Castilla - La Mancha	11,207	5,214	4,670	4,119	3,579	3,063	2,579	2,141	1,752	1,416	1,138
Cataluña	32,399	-59,929	-57,247	-55,019	-53,174	-51,636	-50,326	-49,163	-48,089	-47,056	-46,025
Comunitat Valenciana	10,135	-8,871	-9,359	-9,964	-10,649	-11,374	-12,103	-12,801	-13,437	-13,988	-14,437
Extremadura	463	-133	-257	-395	-540	-690	-838	-978	-1,108	-1,224	-1,325
Galicia	-1,955	-7,329	-7,547	-7,842	-8,199	-8,601	-9,032	-9,470	-9,899	-10,302	-10,666
Madrid, Comunidad de	33,386	7,869	6,932	5,812	4,555	3,213	1,833	462	-853	-2,073	-3,173
Murcia, Región de	7,456	4,894	4,597	4,274	3,931	3,577	3,224	2,883	2,563	2,270	2,011
Navarra, Comunidad Foral de	3,112	1,886	1,729	1,558	1,376	1,189	1,001	819	647	489	348
País Vasco	1,749	-11,332	-11,273	-11,313	-11,435	-11,617	-11,835	-12,066	-12,291	-12,494	-12,664
Rioja, La	-860	-1,191	-1,169	-1,158	-1,155	-1,158	-1,163	-1,168	-1,170	-1,169	-1,163
Ceuta	1,364	993	954	915	877	839	802	767	735	704	676
Melilla	1,564	644	594	548	505	464	427	393	363	336	311

Source: 2010, 2011-2020, Population Now Cast; 2011-2021, Short-Term Population Projection.

Projected natural growth by Autonomous Community

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
National total	105,388	96,658	84,784	71,810	58,107	44,060	30,049	16,466	3,611	-8,264	-18,969
Andalucía	28,047	29,214	27,638	25,788	23,724	21,509	19,214	16,910	14,657	12,510	10,513
Aragón	-156	-511	-683	-887	-1,112	-1,349	-1,587	-1,814	-2,021	-2,202	-2,350
Asturias, Principado de	-4,930	-4,855	-5,017	-5,201	-5,403	-5,613	-5,827	-6,034	-6,229	-6,407	-6,564
Balears, Illes	4,308	4,302	4,045	3,768	3,477	3,179	2,882	2,591	2,313	2,052	1,813
Canarias	6,020	4,775	4,119	3,435	2,735	2,027	1,323	634	-36	-679	-1,291
Cantabria	64	-6	-110	-239	-387	-549	-718	-888	-1,053	-1,209	-1,353
Castilla y León	-6,316	-7,893	-8,347	-8,845	-9,368	-9,900	-10,424	-10,924	-11,391	-11,817	-12,193
Castilla - La Mancha	4,400	3,749	3,416	3,024	2,593	2,139	1,680	1,231	806	413	61
Cataluña	24,838	22,233	19,415	16,528	13,647	10,843	8,176	5,709	3,483	1,526	-147
Comunitat Valenciana	11,930	11,178	9,545	7,802	5,997	4,176	2,382	660	-956	-2,441	-3,779
Extremadura	-647	-791	-917	-1,067	-1,234	-1,413	-1,599	-1,785	-1,965	-2,137	-2,296
Galicia	-7,694	-8,509	-8,993	-9,562	-10,200	-10,890	-11,613	-12,343	-13,062	-13,748	-14,389
Madrid, Comunidad de	31,659	32,040	30,280	28,335	26,260	24,110	21,943	19,818	17,785	15,887	14,158
Murcia, Región de	8,111	8,041	7,641	7,201	6,732	6,249	5,766	5,297	4,855	4,450	4,090
Navarra, Comunidad Foral de	1,844	1,478	1,339	1,181	1,010	832	653	479	315	165	34
País Vasco	1,885	367	-347	-1,121	-1,930	-2,751	-3,559	-4,331	-5,050	-5,703	-6,279
Rioja, La	461	466	377	282	183	85	-11	-102	-186	-261	-326
Ceuta	627	654	665	673	678	680	680	678	675	672	670
Melilla	937	723	719	713	705	697	688	679	671	664	659

Source: 2010, provisional results of the Vital Statistics; 2011-2020, 2011-2021 Short-Term Population Projection.

In turn, if its current trend remained unchanged, large-scale emigration abroad would result in foreign migration contributing negatively to demographic growth for the 2011-2020 period in several Autonomous Communities, particularly in those that have received most immigration in the last few years. This was the case with Cataluña, Comunidad de Madrid, Comunitat Valenciana, País Vasco, Región de Murcia, La Rioja, Comunidad Foral de Navarra and Castilla- La Mancha.

Projected foreign immigration by Autonomous Community

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
National total	62156	-130850	-121993	-113355	-104991	-96946	-89258	-81958	-75073	-68622	-62618
Andalucía	19301	3989	4267	4575	4908	5258	5621	5990	6360	6724	7077
Aragón	4508	2555	2637	2724	2814	2907	3000	3094	3187	3276	3361
Asturias, Principado de	2334	1318	1380	1443	1505	1568	1629	1688	1745	1800	1852
Balears, Illes	5565	2479	2472	2477	2491	2513	2540	2572	2606	2641	2675
Canarias	11215	7664	7684	7711	7744	7781	7821	7864	7907	7951	7994
Cantabria	277	119	156	194	234	274	315	356	395	434	471
Castilla y León	2474	1433	1652	1874	2095	2315	2531	2742	2946	3142	3329
Castilla - La Mancha	2297	-1215	-1109	-986	-847	-696	-537	-371	-203	-35	129
Cataluña	9791	-82213	-77244	-72588	-68252	-64235	-60533	-57137	-54034	-51210	-48651
Comunitat Valenciana	1252	-21038	-20117	-19191	-18268	-17356	-16460	-15589	-14748	-13943	-13177
Extremadura	886	242	254	269	289	311	336	364	393	424	455
Galicia	4321	1076	1222	1372	1527	1684	1842	2000	2155	2307	2455
Madrid, Comunidad de	965	-28369	-27292	-26196	-25093	-23998	-22919	-21869	-20857	-19890	-18978
Murcia, Región de	-656	-4563	-4386	-4197	-4003	-3807	-3611	-3420	-3235	-3060	-2897
Navarra, Comunidad Foral de	-227	-1301	-1240	-1177	-1116	-1055	-996	-940	-887	-838	-793
País Vasco	-1352	-11462	-10837	-10238	-9668	-9129	-8624	-8153	-7719	-7319	-6955
Rioja, La	-1077	-1625	-1540	-1458	-1378	-1301	-1227	-1157	-1089	-1025	-965
Ceuta	472	166	162	157	153	149	146	143	140	138	136
Melilla	-189	-106	-113	-119	-125	-129	-132	-134	-135	-136	-137

Source: 2010, Intercensal Population Estimates; 2011-2020, 2012-2021 Short-Term Population Projection.

With regard to domestic migration, the extension of behaviour observed today would place Comunidad de Madrid, Comunitat Valenciana, Cataluña and Castilla-La Mancha as the Autonomous Communities which, in net terms, would attract the largest share of the population originating in other parts of Spain. They would all have balances of over 15,000 persons in the 2011-2020 period.

In contrast, Canarias, Andalucía and Castilla y León would present the most negative balances as compared with the remainder of Spain.

Migratory balances between Autonomous Communities

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Andalucía	567	-3,194	-3,360	-3,503	-3,626	-3,730	-3,819	-3,894	-3,960	-4,020	-4,073
Aragón	-2,278	-943	-991	-1,037	-1,081	-1,122	-1,163	-1,202	-1,239	-1,274	-1,310
Asturias, Principado de	-183	41	113	181	245	304	358	407	451	491	527
Balears, Illes	-419	-701	-980	-1,226	-1,444	-1,632	-1,797	-1,939	-2,060	-2,166	-2,254
Canarias	-4,392	-3,621	-3,695	-3,754	-3,800	-3,837	-3,866	-3,888	-3,901	-3,905	-3,903
Cantabria	450	592	556	525	499	478	461	448	436	427	419
Castilla y León	-2,991	-3,665	-3,371	-3,082	-2,802	-2,532	-2,272	-2,024	-1,789	-1,567	-1,359
Castilla - La Mancha	5,035	2,681	2,364	2,080	1,833	1,620	1,436	1,280	1,149	1,038	948
Cataluña	-398	50	582	1,040	1,431	1,757	2,031	2,265	2,462	2,629	2,773
Comunitat Valenciana	-3,325	988	1,214	1,425	1,623	1,806	1,975	2,128	2,267	2,396	2,518
Extremadura	303	416	407	403	406	413	425	443	464	489	517
Galicia	1,773	103	225	348	474	605	739	874	1,008	1,139	1,268
Madrid, Comunidad de	17	4,198	3,944	3,672	3,388	3,100	2,809	2,512	2,218	1,931	1,647
Murcia, Región de	-112	1,416	1,341	1,271	1,202	1,135	1,069	1,006	943	881	818
Navarra, Comunidad Foral de	2,005	1,709	1,630	1,554	1,481	1,412	1,344	1,280	1,220	1,162	1,108
País Vasco	2,868	-238	-88	46	163	263	347	418	478	528	570
Rioja, La	-236	-33	-6	18	39	58	76	91	105	118	128
Ceuta	260	173	127	85	45	9	-24	-54	-81	-106	-130
Melilla	1,058	28	-11	-46	-76	-104	-129	-152	-172	-191	-211

Source: 2010, Intercensal Population Estimates; 2011-2020, 2012-2021 Short-Term Population Projection.

Methodological note

The Long-Term Population Projection for Spain compiled by the INE constitutes a statistical simulation of the demographic size and structure of the population resident in Spain, its Autonomous Communities and provinces during the forthcoming 10 years, **should the currently observed demographic trends and behaviour continue.**

In this way, these results basically show the effect that would be had, in the immediate future, by the recently observed evolution of fertility, mortality and migration in each one of these territories.

A population projection consists of a statistical simulation of the population to reside in a specific territory at some point in the future, based on a series of evolution hypotheses for each basic demographic phenomenon, determining the volume and structure thereof: fertility, mortality and migration. The validity of its results is logically conditioned by the aforementioned hypotheses being borne out in reality.

Each year, the INE prepares Short-Term Population Projections (for the following 10 years) for the purpose of adapting to the changing situation of Spanish demographics, through the continuous updating of their results regarding the most recent demographic development and the latest available information. This work is complemented with the Long-Term Population Projections, which are updated every three years.

Both statistical operations have the objective of showing the future evolution of the size and structure of the population that will reside in Spain in the coming years, should the currently observed demographic trends and behaviour continue. The National Statistics Institute is now disseminating the results of the Short-Term Population Projection for Spain, 2010-2020.

The general calculation methodology is based on the classical component method. The application of the said method is in response to the following schema: starting from the resident population in a certain geographical area, and the retrospective data observed for each one of the basic demographic components (mortality, fertility and migration), the idea is to obtain the figures on the resident population, corresponding to subsequent dates, under the hypotheses established on the development of these three phenomena, which are those which determine their growth and their structure by age.

The component method has been applied according to a *multiregional projection model*¹ which enables the total consistency of results at all territorial levels considered, and the coherence necessary between demographic flows and population stocks.

Reference date of the results: 1 January of each year of the 2010-2020 period for population stocks; annual demographic flows of the 2010-2019 period for demographic events.

¹ Willekens, F.J. and Drewe, P. (1984) "A multiregional model for regional demographic projection", in Heide, H. and Willekens, F.J. (ed) *Demographic Research and Spatial Policy*, Academic Press, London.

Population scope: the population resident in Spain and in each of its Autonomous Communities and provinces.

Territorial scope: Spain, Autonomous Communities and provinces.

Breakdown variables: sex, age and generation, for both population stocks and demographic events.

Entry population: the Population Now Cast at 1 January 2010.

Provincial results

The provincial and remaining detailed results of the Short-Term Population Projection may be viewed at: [Inebase](#)